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POPULAR AND PRACTICAL ENTOMOLOGY.

A Red-Letter Day.

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Part I.

On July 2nd, 1917, I formed one of a party of friends who motored up to Chemong Lake. We were celebrating the holiday, but in a peculiar way; half an acre of ground had been rented by the more enterprising members of the party, and on it quite a respectable market garden was in process of culture; how respectable, you will perhaps best understand when I tell you that it yielded during the season several barrels of potato bugs. When Tom Sawyer wanted his fence whitewashed, he simply cracked up the job till his friends insisted on doing the work for him; much in the same way for more than a week—especially in the leisure hours of evening—my neighbour had been carefully preparing the ground for me to dig in with the hoe. But the strategic advantages of his position were more than neutralized by my thorough acquaintance with Tom Sawyer and the famous whitewashing episode. I was well aware that the picnic wasn't going to be all cakes and ale and that I should be expected to do my bit; but just as my neighbour took rod and reel, I took insect net and cyanide bottle, to provide for lucid intervals.

It was about half-past ten when our chauffeur drew up in a spacious cedar thicket almost at the water's edge. We found the occupants of the other car had stopped at the kitchen-garden instead of coming on the last half mile to headquarters. Feeling confident that there were not hoes enough to go round I invited the only other man in our party to come exploring the wood with me; he had spent 60 years diligently ignoring woods, so I knew he was pretty safe to refuse; and indeed I hardly waited to see what "starting-hole" of excuse he would wriggle down, before plunging into the shadowy cedar aisles in a direction calculated to bring me out near a big hill that I had noticed during the drive. This height commanded a view of the lake and was wooded in front all down the steep slope to the shore; the trees were mixed, but with cedar predominating. On the top of the slope were 3 or 4 magnificent basswoods, a landmark for miles around.

Moving south-westward I soon shook myself clear of the cedar thicket, and crossing a somewhat spongy meadow began to ascend the slope. Half-way up I came upon a small clearing, partly filled in with raspberry bushes and surrounded on all sides by cedars. Hardly had I stepped into this, than a sharp, querulous bark, almost like a fox-terrier's, warned me that I had been discovered by a sentinel crow on its outlook post overhead. Almost immediately bedlam broke loose and the air was thick with these black, jabbering lunatics. For a moment I was puzzled to know why a general alarm had been rung in, but it was soon apparent, nearly every cedar round the edge of this hidden glade had 3 or 4 young crows roosting on its branches, and though at first they tried the dodge of "freezing" on their perch, they soon began hopping and fluttering clumsily into cover, while the old birds guarded their retreat.

Finding nothing of interest about the raspberry thicket or the elder shrubs in its midst, I resumed my climb and presently won out to the top. Here I paused and took my bearings; just beyond me, on the far side of a low bank of field-stone, topped by a rickety old rail fence, lay an open meadow, while over my head stretched the noble canopy of a giant basswood. If my tribe had a totem pole, it should be of either basswood or white pine, for most of my lucky finds have been about these two trees, and I seldom pass either without giving it a good look-over. If my faith had ever wavered, that tree effectually nailed my colors to the mast forever and a day: on the very first leafy branch and almost the first bit of foliage that caught my eye, there sat an unmistakable specimen of *Hoplosia nubila*. Now this beetle is far from common; during all the years of collecting in Port Hope, I had never seen it, and in three seasons at Peterborough I had taken but four, all on freshly fallen timber, three on basswood and one on beech.

There was a breathless moment of suspense while I captured the insect and registered a mental vow not to leave the spot till I had hunted high and low for further trace of its kind. For some minutes my eye ranged over the foliage for insects as searchingly as an up-to-date spraying machine, but without result. I then drew close to the trunk of the tree, and on the jutting spike of a dead branch appeared another *Hoplosia nubila.* I had seldom found anything of much account on dry wood, but I recalled the book statement that this insect bred in dead limbs of basswood. Half the tree spread out on the meadow side of the low stone rampart, so I made to enter the field; on the upper end of a picket and again on the top rail of the fence I met—apparently, like me, getting over the wall—three more specimens of *Hoplosia nubila.*

Where had they come from? Had they dropped from the green foliage above, or emerged from a dry branch under the tree? I noticed now for the first time a large, dead limb lying along the bank of field stone—a windfall of several years ago—rotting, but fortunately not sodden from contact with the earth; the end away from the butt had one or two boughs still armed with broken branches, and one of these rose at an angle and was partly supported on the second rail of the fence right at the picket. Only an enthusiastic collector knows how my mouth watered and my heart danced when I looked closely at the picket and the branch here on the sunny side of the fence: resting on their surface, within easy reach, I counted 7 specimens of *Hoplosia nubila.* By the time I turned reluctantly away to join the hoeing-bee at lunch, I had captured 17.

As soon as lunch was over some of the men scattered to look for bait, hoping to catch a bass or two before revisiting the kitchen-garden. I, too, set out to look for bait, but as soon as I rounded the corner I dived into the friendly shelter of the cedars and made a bee-line for the basswood. The sun had almost given my recruiting ground the slip, but I succeeded in capturing 8 more specimens about the dead limb and the picket fence; and on visiting some trees further along the ridge I captured 2 more.

To test out the insect's habits and season I made it a point during the next few days to visit all the basswoods newly felled or dead that I could think of in the neighbourhood; on July 3rd I examined some newly felled basswood at Nassau and succeeded in capturing 3 specimens of *Hoplosia*, apparently attracted to the dying trees either to breed or to oviposit on the branches; and a few days later I took 5 on some windfalls and one on a lopped branch in the same neighbourhood; also on July 4th, revisiting this dead limb of my first captures west of Chemong, I took 4 more specimens, including a mating pair and a single specimen in the very act of emerging, its head and antennæ alone being visible. Examination of the insect's burrow and of others in which I found larvæ, went to prove that it is fondest of dead wood and that it does not bore deep, the tunnels being all either in or just below the under bark. For nearly a fortnight I came across occasional specimens of the beetle, and had the unique experience of making one capture on a dead *maple;* altogether my catch for the season of this rare longicorn was well over 40 specimens. It never rains but it pours.

Part II.

On this holiday of July 2nd, it was still early afternoon when I returned to the picnic ground; learning there that the men, after landing a small sunfish, had been converted from angling-rods to hoes, I hurried off to encumber them with help. When I reached the fence and hailed the toilers, I found that the stony land in a fit of wanton mischief had smashed one of their hoes and—in short they scorned my proffered help and (in much the tone that the Athenians of old consigned a man "to the crows") they bade me be off to my beloved bugs.

"There's many a true word spoken in jest," though that was not the comment I muttered as I turned away in the direction of a fallen poplar by the roadside. It was a balsam or small balm-of-Gilead, and on it I found 2 specimens of *Hyperplatys aspersa*, my first that season. Working east, I then skirted the fence between the road and the market-garden. Almost at the corner of of the half-acre lot I noticed, doing duty for a top rail in the old snake-fence, a dead brush-head of hemlock; branches, twigs, and actually a few cones still in place; quite dry, even to the patches of resin upon it. I examined this closely in hopes of longicorns or buprestids, as the sun poured its burning rays over the surface, and presently on the south side I noticed a curious looking weevil that was strange to me; it was black and rough on the back, with a conspicuous, broad patch of dull, white across the elytra near the base; it reminded me a little, in pattern at least, of a somewhat uncommon beetle called *Eurymycter* which I have occasionally captured; only the patch on this last is snow-white and situated at the outer end of the elytra.

Before dropping my prisoner into the *oubliette*, I took off my glasses and examined it closely; it was entirely new to me; on the centre of the thorax was a perfect little *fleur-de-lys* or trefoil of fawn-coloured pubescence, while on the scutellum was a tiny spot of white. On getting a front view of the head, I found it had the long, broad, flat "horse-face" of the *Anthribidæ*, and this feature was rendered all the more conspicuous from being white with dense pubescence. I had never ventured very far into even generic distinctions of the great Clan Curculio, and made no attempt when I got home to examine my find under a lens. But meantime I searched carefully over the bark of the hemlock for more, and at last, just when I was giving up the search, I spotted a second specimen (rather larger, but with decidedly shorter antennæ) right on the upper surface of the hemlock. Seeing two or three more hemlocks in the same condition of decay, I spent an hour of unremitting toil scouring their surface, above, below and on the sides, ferreting into every nook and cranny with searching looks; but all in vain.

When I came to pin my captures, I found that the tiny white scutellum had immediately behind it (i. e., further from its base) a spot of jet black pubescence that looked like a cavity, and also that the roughness on the elytra was strongest a little behind the base, where it rose into two bold tubercles (one on each elytron), for all the world like a pair of projecting shoulder blades; and these tubercles were partly within, partly without the white patch mentioned before. After dating the insects and putting them into one of the collecting cases in which I keep the season's catch from spring till fall, I soon forgot all about them in the more fast and furious fun of hunting Long-horns.

During July and August I was corresponding with a well-known New York coleopterist in the matter of *Microclytus gazellula* Hald. and its puzzling little doppelgänger *Microclytus gibbulus* LeC. This correspondence culminated in the arrival of a precious little box at our tent on Cache Lake. It contained a beautiful specimen of *M. gazellula;* in writing to thank for this most acceptable present, I promised the donor a verified pair

(♂ and ♀) of *M. gibbulus* as soon as I returned from camp. A few days after, I received a letter of acknowledgement, with a P. S. which declared that the writer had for years greatly desired to possess in his cabinet a specimen of a small beetle found, but rarely, on fungus-covered logs in our northern forests; it was called *Gonotropis gibbosus.* I had never heard this name before, nor did I know to what family the beetle belonged; so, naturally, my first thought was that I could never have come across the insect or I should have known the name, and further, that among the 10,000 or 11,000 beetles known in North America, it was most improbable I should ever stumble upon the particular one my correspondent desired.

When, moreover, I returned from the backwoods and drew out my Henshaw to find *Gonotropis* a weevil, I felt still more certain it was a case of looking for a needle in a haystack; nor was it much better to learn that it belonged to the small family of *Anthribids*, for of these I had only 2 or 3 representatives at most. However, I turned up the two works I possess on the weevils, LeConte and Horn's monograph and the recent book of Blatchley and Leng; here, avoiding the small print of detailed description, I looked to see the range and record of captures; from the older work I found that the insect was *sui generis* and (worse and worse!) that both generic and specific descriptions were founded on a single specimen from Colorado; the recent work did indeed record it over a very wide range on both sides of the border, but it was evidently extremely rare, for the senior author, Leng, was the very man who had written to me about it.

Having gone so far, however, I glanced over the detailed specific description: "convex, black; white face, proboscis and scutellum; broad, saddle-shaped patch of white near the base of the elytra; two humps on the 3rd interval;" and suddenly there rose out of the page before me the picture of a stony market-garden, two mocking men with hoes, a snake-fence, a dead hemlock rail, and that queer little pair of weevils squatting on the bark, like hobgoblins in a fairy tale. I jumped for the shelf on which my July captures lay cabined, and from the middle of a box most ludicrously labeled "Bachelors," drew out the tiny pair of oddities (husband and wife, as sure as antennal measurements could make them) captured at Chemong on July 2nd.

I then subjected them to a careful scrutiny with the specific description before me. Point for point, they coincided throughout. The only thing debatable was the "deep fovea" behind the scutellum; if "behind" meant further from the base, there was no cavity there; I focused the insect under a two-inch objective in the microscope, and after some trouble succeeded in touching the centre of this so-called pit with the point of a fine needle mounted on a pen-holder; as soon as the needle point came into focus the insect was jarred into a blur, and when the vibration ceased there was the needle-tip still in focus and resting *on* the centre of the black spot; it was no fovea, but a tiny patch of jet-black pubescence on a level with the snow-white scutellum.

To the best of my belief, then, on July 2nd, 1917, besides capturing over a score of *Hoplosia nubila*, I had taken two specimens of this great rarity *Gonotropis gibbosus*, specimens, moreover, that by a unique stroke of luck formed a natural pair, male and female. If it never rains but it pours, assuredly on this date, in the quaint parlance of Geoffrey Chaucer, it fairly "snewèd" of good things.

A TIPULID FLY FROM BALTIC AMBER.

BY T. D. A. COCKERELL AND GRACE E. CLARK, BOULDER, COL.

In *Canad. Entom.*, 1915, p. 159, it was remarked that some of the Mycetophilidæ had remained without evolutionary progress in about a million years, exhibiting merely minor changes or the shuffling of characters, producing closely related species. The Baltic amber is probably twice as old as the Florissant shales, and yet, in spite of the great age of the specimens, dating back to Oligocene times, we find that many of the species differ little from those of to-day. Such, for instance, is the Tipulid fly now described. It presents an assemblage of characters which permit its recognition as a species; but we cannot say that it is more primitive or archaic in appearance than its descendants or representatives living in the same region at the present time.

Limnophila electrina, n. sp.

Male.—Body and legs dark reddish brown, thorax decidedly